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STEAM
GENERATORS
AND
HOT-WATER
CIRCULATORS





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PARAGON

STEAM-GENERATORS

AND

HOT-WATER CIRCULATORS

MANUFACTURED BY

ISAAC A. SHEPPARD & Co.

MAKERS OF

PARAGON HOT-AIR FURNACES

PARAGON COMBINATION
HOT-AIR AND HOT-WATER HEATERS, ETC.

FOUNDRIES AND SALESROOMS

N. E. Cor. Fourth St. and Montgomery Ave.

PHILADELPHIA, PA.

S. W. Cor. Eastern Ave. and Chester St.

BALTIMORE, MD.

WAREHOUSE AND STORE

S. E. Cor. Pearl Street and Peck Slip

NEW YORK

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INTRODUCTORY

THE PARAGON STEAM GENERATORS, HOT-WATER CIRCULATORS and DWARF TANK HEATERS have been on the market for a number of years, and have become well and favorably known to the enterprising heating contractor and his customers.

We attribute the success of the PARAGON to its superior construction and workmanship, as well as to its conservative ratings. We confidently refer the prospective purchaser of a boiler to the detailed description of our goods as set forth in the appended catalogue.

Since the publication of our last edition, we have added a new line of PARAGON Laundry Stoves, to which we invite special attention.

ISAAC A. SHEPPARD & CO.

September 19, 1903.





Warranty

RATINGS are conservatively made in accordance with accepted standards, and are based upon all piping, mains and risers, flows and returns, being figured as radiating surface in addition to the cast-iron direct radiation to be used. Whenever pipe coils are used as radiating surface instead of cast-iron radiation,

Ratings

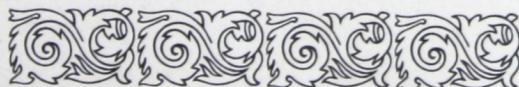
a boiler of 25 per cent. greater capacity should be selected. The ratings given in the tables are based upon the consideration that a sufficient amount of radiation shall be furnished to heat the building to a temperature of 70 degrees in zero weather, with steam at two pounds pressure at the boiler; or, in the case of hot water, with water at a temperature of 180 degrees when it leaves the boiler.

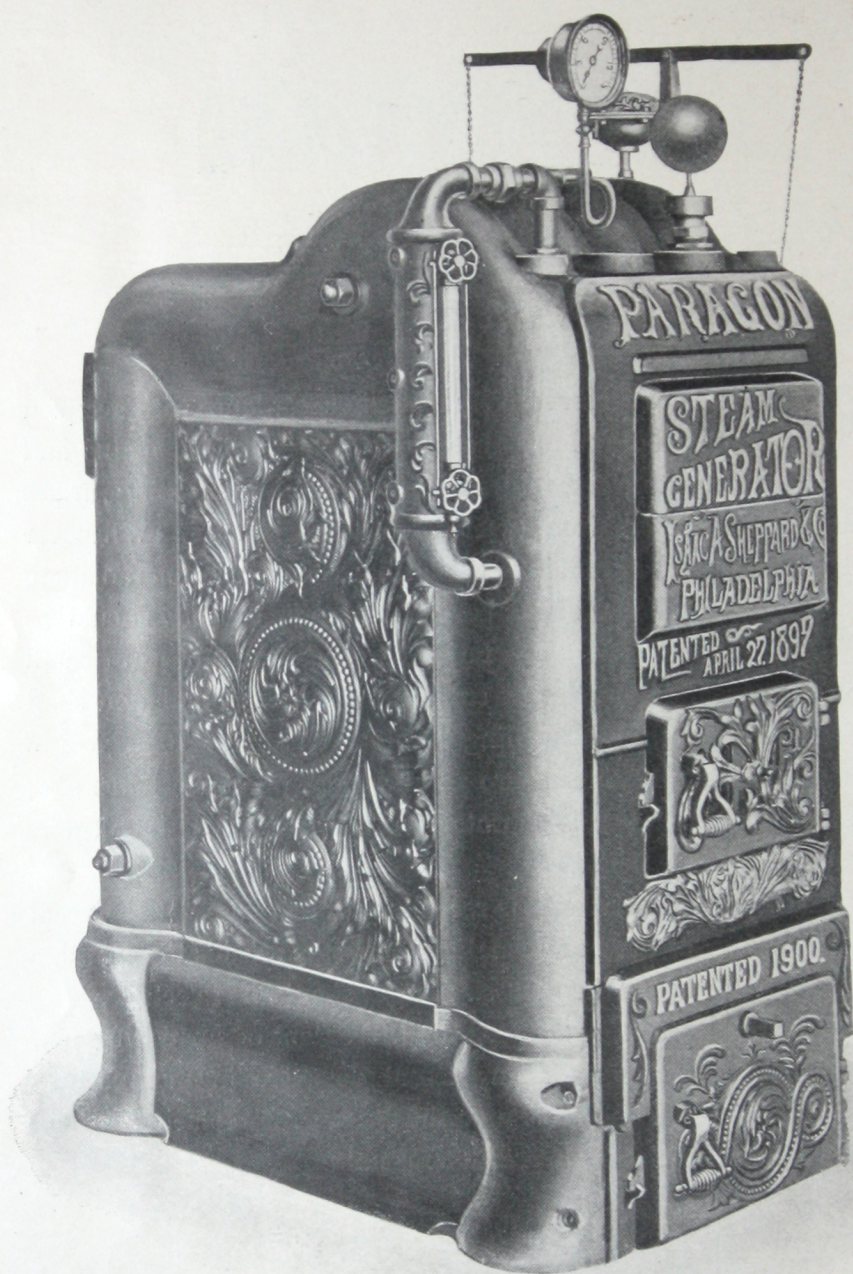
Hard coal of stove size is recommended for use. If soft coal or hard coal smaller than stove size is to be used, a boiler the next size larger should be selected.

Fuel

Our boilers are guaranteed to the extent of furnishing new castings for any found defective in manufacture. We do not assume the expense of replacing sections or parts, nor any claims of a collateral nature.

Guarantee





Paragon Steam Generator

PATENTED APRIL 27, 1897
PATENTED FEBRUARY 7, 1899

Cut Shows Generator No. 428

PATENTED JUNE 15, 1897
PATENTED MAY 29, 1900



Paragon Steam Generator

Patented April 27, 1897

Patented June 15, 1897

Patented February 7, 1899

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Patented May 29, 1900

THE **PARAGON** Steam and Hot Water Heating boilers have now been on the market for several years, and the general satisfaction with which they have met the varied requirements is the best proof of their superiority. The market is flooded with boilers of antique types, which, when compared with the **PARAGON**, only serve to demonstrate its superior qualities.

The **PARAGON** is built in vertical sections mounted from side to side. This is the ideal arrangement. Where boiler sections are mounted horizontally, one above another, the additions to the boiler are made in the form of flue surface, the size of the fire-pot remaining unaltered. In view of the fact that flue surface is not

Discarded Types

prime heating surface, the boiler is made unnecessarily heavy and expensive, and is too often made to finish so high as to require a pit in which to set the apparatus in order to properly connect the mains. On the other hand, when the boiler is made of vertical sections mounted from front to back, the area of the flue must necessarily remain fixed, notwithstanding the increased grate surface, which means that the flue is either too large in the small boiler or too small in the large one.

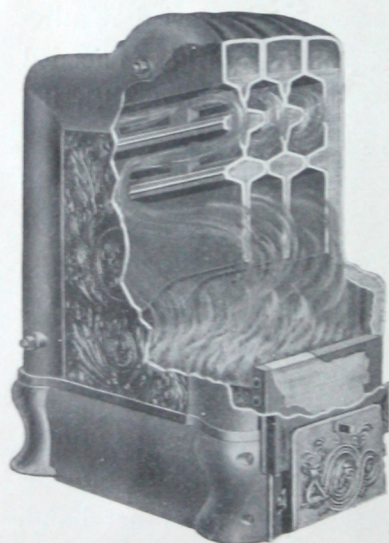
Besides this, the length of the fire in boilers of this type is so considerably increased as the sections are added that it is practically impossible to keep the fire from becoming dead at the back of the heater. Then, again, it is difficult to throw the coal to the back of such a long fire, as well as to introduce sufficient draft at the back of the fire to maintain a uniform combustion; and the removal of ashes from a long and narrow ashpit is annoying and troublesome.

It is, therefore, clear that the ideal apparatus is a boiler which, as the sections are added and the grate surface enlarged, will also

Ideal Construction

increase the flue area of the boiler. It is manifest that this can only be done in a boiler whose sections are mounted from side to side; and when with these advantages are coupled the facts that the fire can be made shallow from front to back and therefore can be readily kept bright and more easily supplied with proper draft, the ideal boiler construction is attained. All these features are combined in the **PARAGON**, a boiler which will give the maximum of service

with the minimum attention and with greatest economy in fuel.



Broken View, Showing Internal Circulation and Smoke Travel

Internal circulation is a prime necessity if a boiler is to be efficient and economical. The accompanying diagram shows how perfectly the **PARAGON** attains this. It is practically a water-tube boiler, the tubes being flattened sidewise and inclined upward

Internal Circulation

from back to front. Rapid travel of the water over the heating surfaces, and quick and steady evaporation without ebullition or "foaming," are thus secured. In the end sections, a rapid, complete

circulation is also assured, the heat being applied on one side only. The heated current moves freely upward upon the side next the fire, and the cooler particles in contact with the outer side of the section move rapidly downward.

While each section has within itself a perfect and independent circulation, there is provided a free inter-communication between the sections, *within the containing walls* of the boiler itself. The superiority of a direct connection of this character, over a communication maintained by means of pipe connections with an exterior

Complete Inter-Communication

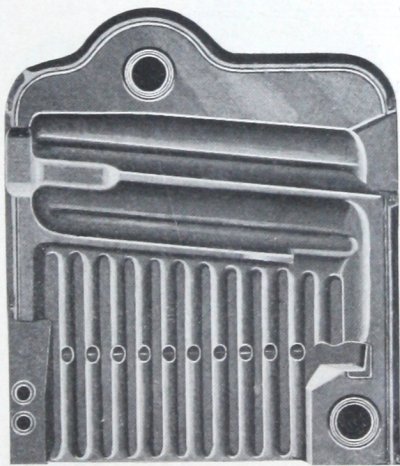
chamber or "manifold," must be evident at a glance. The steam chamber is, in effect, a single chamber, and the water level is maintained with absolute uniformity in all the sections under all possible conditions. In a closed system, with proper working conditions, no perceptible variation is likely to be experienced. This thorough inter-communication equalizes expansion and relieves the apparatus from all expansive strains.

The heating sections of the **PARAGON** are connected by means of our improved corrugated nipple. This nipple is the result of a great

Patent Nipple Connections

deal of experimental work on our part and is superior to the push-nipple, screw-joint, or common gasket connection, as it is so arranged that it cannot possibly rust fast—a difficulty which is constantly experienced

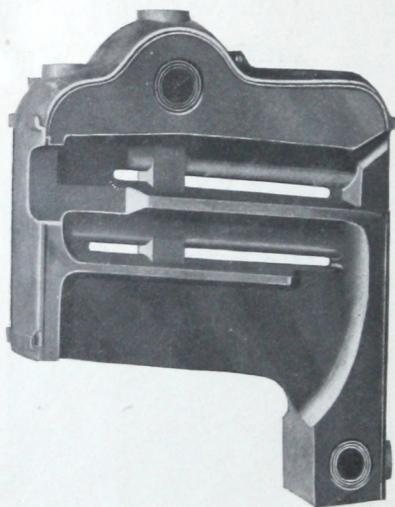
where screw-joints are employed—and it more readily takes up the expansion between the sections than the push-nipple, and in this way removes the liability of the sections cracking when under hard fire. It is also superior to the gasket construction, for the reason that the gasket, being directly exposed to both fire and water,



Left-Hand End Section, Paragon Steam Generator

is apt to disintegrate and thereby cause the boiler to leak, whereas in the **PARAGON** the joint is entirely protected from the fire. The nipple used in the **PARAGON** is the successful outcome of much study to obviate these difficulties, and is fully covered by patent. A long bolt passing through the axis of the nipple connections secures the sections together, and when the nuts are drawn to their places, the strain being distributed over the entire surfaces of the joints, absolute contact is assured. The connecting nipples are not exposed to smoke or gaseous products, and cannot deteriorate in any way. The joints thus made are water-tight as well as steam-tight, and will always remain so; while, if for any reason it should be desired to take down the boiler at any time, these joints can readily be separated. Every practical man realizes the superiority of such an ideal joint.

The smoke flues of the **PARAGON** are formed in the sections



Intermediate Section, Paragon Steam Generator

Flue Construction

themselves, one-half in each part, so that when adjacent sections are brought into contact in erecting the boiler, the flue is complete. The cut of the End Section on page 7 shows the flue formation. The heated gases travel in lines parallel with the travel of the water circulation, and pass first to the back of the boiler, then to the front, then back again to the smoke outlet, traversing a distance equal to three times

the length of the boiler before making their exit. As the illustration shows, the parts in immediate contact with the fire are corrugated vertically, while the flue surfaces are corrugated laterally. Not only is the boiler strengthened by these corrugations, but the heating surface is increased thereby nearly 50 per cent. By the

time that the products of combustion have reached the smoke pipe at the rear of the boiler, their heat has been so fully utilized that no more heat remains than is needed to create a proper draft in the chimney. The **PARAGON** is arranged for a smoke-consuming device, a convenience which will be particularly appreciated when soft coal is used for fuel.

A water-front is connected with the side of the Generator, adding very materially to its heating capacity. It can also be used in connection with a circulating boiler to increase the supply of hot water for domestic uses. If the water-front is not desired the holes are closed with screw-plugs and a heavy lining is substituted for it.

Water Front

In the illustration of the intermediate section on page 8, the water-tube feature of the **PARAGON** construction is clearly exemplified. It is really a water-tube boiler made of cast iron, the lower tube being so arched and elongated in section as to present a large heating surface to the direct rays of heat from the fire. These tubular portions of the sections are given sufficient incline to clear the flues of soot and at the same time, being connected with the back leg of the boiler, the boiler can be readily drained at any time, a feature which is impossible with the drop-tube construction. The flue surface is carefully proportioned to the grate surface so as to secure the best results; and the flue surfaces are easily cleaned, all soot and dust being readily dislodged and dropping back into the fire chamber. The nipple connections are clearly shown in position in this cut.

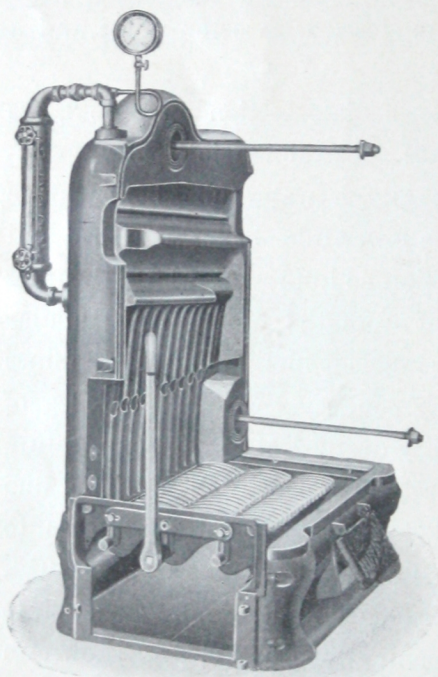
Flattened Water-Tubes

The cut of the base of the **PARAGON** shows the arrangement of the grate, the ashpit front having been removed for that purpose. The grate is perfectly adapted for either hard or soft coal. The grate is of an improved shaking and dumping pattern, and is provided with a catch which, when in place, admits of sufficient movement of the bars to properly agitate the fire, and which, when withdrawn,

Grate Construction

allows the contents of the fire chamber to be dumped into the ash-pit. While abundant air openings are provided, the bars of the grate are so spaced that pea coal or soft coal can be burned on these bars economically. With pea coal but little agitation is required to free the ashes. As pea coal contains much slack, dirt and slate, we recommend that the smallest stove size be used when anthracite coal is employed.

The grate-bars are connected by a wrought iron link-bar, secured in place by spring cotters. This bar is not exposed in the ash-pit. It takes but a moment to remove and replace any bar,



Base of Paragon Steam Generator, with End Section and Bolts in Position

ease of repair being properly regarded as of much importance. In boilers of less than seven sections, the grates are agitated by means of a single lever, as shown in the cut. In boilers of seven or more sections two levers are used, each agitating one-half of the fire. The ease with which this form of grate is operated is not excelled by any competing device. No slicing bars or heavy tools are required for use with the **PARAGON**. Nothing is needed but a shovel with which to put on coal and remove ashes,—the grate “does the rest.” The short and quick

agitating movement of this grate crushes clinker and cinder, and so allows them to pass through the space between the bars; but the hard particles of unconsumed coal are retained.

The method of forming the smoke flues by bringing the sections together is clearly shown by the cut on page 12, the boiler front having been removed. The clean-out openings are reached

by lifting off the plate marked "Steam Generator" in the cut of the complete apparatus on page 4. The draft door is at the side

Flues

Easily Cleaned

of the ashpit, admitting air at the rear as well as at the front of the grate. In boilers of more than six sections in width, a draft door is provided at each side of the ashpit. The smoke box at back of boiler is provided with a draft check; this, as well as the draft door, being operated by the damper regulator, as shown. All sections of the **PARAGON** are carefully made and perfectly inter-

Sections

Interchangeable

changeable; so that if any section should be damaged by any mischance it can be replaced at once by another, without any delay or special and expensive fitting. This is a practical point of great importance. All sections are strongly made, with numerous stays cast in them to prevent any possibility of rupture; the surfaces being curved, arched and corrugated throughout, to give relief from strains due to alternate heating and cooling of the apparatus.

As a material for use in the construction of domestic boilers and water heaters, cast iron is greatly superior to wrought iron or steel. If a cast iron section should be ruptured

Durability of Cast Iron

by any accident, nothing more serious could occur than the putting out of the fire; while cast iron does not deteriorate by rusting in any appreciable degree. Wrought iron and steel rust rapidly, both while the apparatus is in use and also during the summer months.

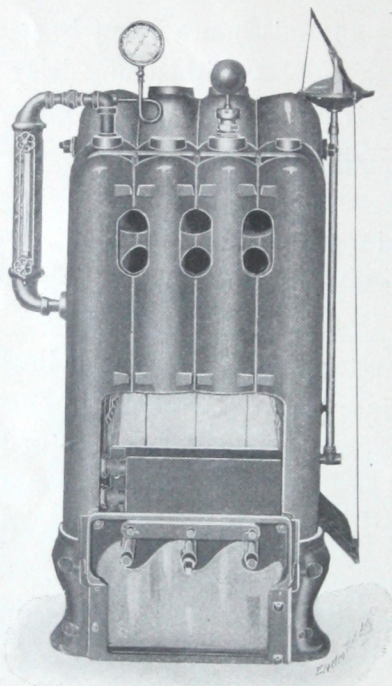
The fronts, ashpit, smoke box and heating sections are shipped separately, and can easily be carried through an ordinary doorway into a cellar, where it takes but a short time to

Ease of Installation

erect the Generator complete. The ashpit must have a level foundation, in order that all parts may come perfectly into line. There is ample room in ashpit under the grate, the fire being shallow from front to back; but if more room is desired, the bottom plates of ashpit, which are loose,

may be left out and a brick ashpit constructed beneath the opening in the bottom. In such a case the ashpit should be made to slope steadily upward to the bottom of the ashpit door. As will be seen by referring to the tables of dimensions, the Generator when erected is low in height, giving good elevation to the pipes, even in low cellars. Generators of more than six sections have double fronts, with two feed doors, clean-out doors and ashpit doors. The fire chamber, however, is continuous in all sizes.

No brickwork covering is needed for the **PARAGON** Generator.



Four-Section Paragon Steam Generator,
with Front Removed, Showing Water
Front in Position

No Brickwork Necessary The joints and depressions between sections

are packed with asbestos cement, and ornamental cast iron panels are provided at the sides of the boiler, under which asbestos linings can be placed. This practically provides the **PARAGON** with a cast iron jacket, which is far more desirable than one made of sheet iron, as all sheet iron constructions are apt to be affected by the products of combustion and have to be renewed within a short time. The cast iron panels of the **PARAGON** are indestructible. No other boiler upon the market possesses this unique feature.

Particular attention is directed to the large steam space afforded by the **PARAGON** construction. Most boilers of this sort are simply hot-water circulators used for steam, the manufacturers not desiring to incur the expense of special patterns for steam purposes. Such makeshifts are undesirable, for if dry steam is to be supplied to the radiators of a heating system

and no water carried over into the pipes, ample steam space is indispensable. It is impossible, in a boiler built for hot-water pur-

Large Steam Space

poses, to provide ample steam space without lowering the water line, in which case the flues are not properly protected by water, thus affecting the durability of the boiler and causing an unnecessary waste of fuel.

Economical use of fuel is characteristic of the **PARAGON**. The wide and shallow fire makes it easy to feed the coal with regularity to the back as well as the front of the fire chamber and to keep the back of the ashpit clear of refuse. This insures an equalized

Economy of Fuel

draft and perfect combustion throughout the whole mass of fuel. Furthermore, the combustion chamber is so arranged as to expose the largest possible part of the heating surface of the Generator to the direct action of the fire, such surface being 70 per cent. more effective than indirect or flue surface. As each additional heating section carries with it exactly the additional amount of fire surface, flue surface and grate area required for its full efficiency, the same ratio of economy is maintained in the largest boiler as in the smallest of the series. On a long continued evaporative test this has been found to be thirteen pounds of water evaporated per pound of combustible.

It has been the desire of the manufacturers of the **PARAGON** to make a boiler not only superior in structural features, but also

Ornamentation

to make it a thing of beauty in itself. It will be noticed that all the doors and the end panels of the boiler are ornamented in a tasteful way. After the first cost of the patterns has been borne, it is just as easy to make an artistic casting as to make an ugly one. The manufacturers have spent money to beautify the exterior of the **PARAGON**, because they believe that the excellence of its interior

construction deserves a handsome dress. They thus set up a high standard of finish before the artisans they employ; and the result is that the workmen take more pride in their work, and try to bring all parts of the apparatus to a more careful fit and finish.

The appended table of dimensions and capacities supplies definite particulars. It is important that boilers should not be over-rated. The ratings given are conservative, and

Conservative Ratings

should be fully realized in practice under proper conditions. It is always judicious, in selecting a boiler, to take one that will carry 25 per cent. more radiation than is figured on as necessary, as it is sometimes found when a job has been completed that more radiation is desired in certain

rooms; and it is well to have a reserve power, at the source of supply, to provide for all contingencies. The prices of

"**PARAGON Steam Generators**" include the usual steam fittings,

Steam Fittings

namely: Steam Gauge, Water Column with Glass

Water-Tube Safety Valve, Damper Regulator, Flue Brush and Hoe. When soft coal is used, on account of the possible clogging of the flues by soot, we recommend one size larger boiler than for hard coal. Wood is not a desirable fuel for such



Cut Showing Ornamental Panel

apparatus. The temperatures in the flues being comparatively low, the creosote contained in the wood smoke condenses upon the flue surfaces, greatly diminishing their effectiveness and increasing the difficulty of keeping the flues clean.

We have endeavored, in the preceding pages, to give a very full description of the **PARAGON** Steam Generator. We believe that it has features not to be found in other boilers, and that greater satisfaction can be obtained from its use than from any other apparatus of the kind manufactured.

We invite correspondence with reference to these or any other goods of our manufacture, and all orders that we may receive are given our prompt and careful attention.



Paragon Water-Tube Steam Generator

Number of Generator	Number of Sections	Grate Dimensions	Width of Generator	Depth of Generator	Total Height	Height of Water Line	Height to Center of Return	Feed Outlets	Return Inlets	Size of Smoke Pipe	Direct Radiation Supplied
			Across Water Sections							Inches Round	Sq. Feet
320	3	14 x 20	18½	27	54	46	12½	1—2½	1—2	6	225
420	4	20 x 20	24¾	27	54	46	12½	2—2½	2—2	Round 7	350
424	4	20 x 24	24¾	31	54	46	12½ ³ / ₈	2—2½	2—2	Round 7	425
520	5	26 x 20	31	27	54	46	12½	2—2½	2—2	Round 8	500
524	5	26 x 24	31	31	54	46	12½ ³ / ₈	2—2½	2—2	Round 8	575
428	4	20 x 28	26 ⁵ / ₈	40 ³ / ₈	59½	49½	16 ³ / ₈	1—3	1—2½	Round 8	600
620	6	32 x 20	37¼	27	54	46	12½	2—2½	2—2	Round 10	650
624	6	32 x 24	37¼	31	54	46	12½ ³ / ₈	2—2½	2—2	Round 10	725
528	5	26 x 28	32¾	40 ³ / ₈	59½	49½	16 ³ / ₈	2—3	2—2½	Round 9	800
720	7	38 x 20	43½	27	54	46	12½	2—2½	2—2	Oval 12	850
724	7	38 x 24	43½	31	54	46	12½ ³ / ₈	2—2½	2—2	Oval 12	925

Paragon Water-Tube Steam Generator

Number of Generator	Number of Sections	Grate Dimensions	Across Water Sections		Total Height	Height of Water Line	Height to Center of Return	Feed Outlets	Return Inlets	Size of Smoke Pipe	Direct Radiation Supplied
			Inches	Inches							
628	6	32 x 28	38 $\frac{7}{8}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	2—3	2—2 $\frac{1}{2}$	Inches Round 10	Sq. Feet 1000
824	8	44 x 24	49 $\frac{3}{4}$	31	54	46	12 $\frac{13}{16}$	3—2 $\frac{1}{2}$	3—2	Oval 12	1125
728	7	38 x 28	45	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	2—3	2—2 $\frac{1}{2}$	Oval 12	1250
924	9	50 x 24	56	31	54	46	12 $\frac{13}{16}$	3—2 $\frac{1}{2}$	3—2	Oval 14	1350
828	8	44 x 28	51 $\frac{1}{8}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	3—3	3—2 $\frac{1}{2}$	Oval 14	1500
928	9	50 x 28	57 $\frac{1}{4}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	3—3	3—2 $\frac{1}{2}$	Oval 15	1750
1028	10	56 x 28	63 $\frac{3}{8}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	3—3	3—2 $\frac{1}{2}$	Oval 15	2000
1128	11	62 x 28	69 $\frac{1}{2}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	4—3	4—2 $\frac{1}{2}$	Oval 16	2250
1228	12	68 x 28	75 $\frac{5}{8}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	4—3	4—2 $\frac{1}{2}$	Oval 18	2550
1328	13	74 x 28	81 $\frac{3}{4}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	5—3	5—2 $\frac{1}{2}$	Oval 18	2850
1428	14	80 x 28	87 $\frac{7}{8}$	40 $\frac{3}{8}$	59 $\frac{1}{4}$	49 $\frac{1}{2}$	16 $\frac{3}{8}$	6—3	6—2 $\frac{1}{2}$	Oval 18	3150



Paragon Hot-Water Circulator

PATENTED APRIL 27, 1897
PATENTED FEBRUARY 7, 1899

Cut Shows Circulator No. 428

PATENTED JUNE 15, 1897
PATENTED MAY 29 1900



Paragon Hot-Water Circulator

Patented April 27, 1897

Patented June 15, 1897

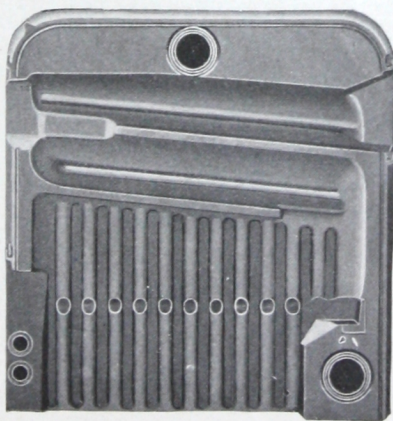
Patented February 7, 1899

Patented May 29, 1900

THE steadily increasing popularity of hot-water heating for residences has educated the people to such a degree that it is a very difficult matter for an inferior apparatus to be sold to them. What we have said with regard to discarded types of steam boilers applies with even more force in the case of hot-water boilers; for not only are there many obsolete types

Structural Features

on the market, but even many of the comparatively modern makes are unsuited for hot-water heating, because they are simply steam boilers used for hot-water purposes. This is not the case with the **PARAGON** HOT-WATER CIRCULATOR, for while its structure is in most respects the same as that of the **PARAGON** STEAM GENERATOR, yet it differs from it in one important particular. The Steam Generator



Left-Hand End Section
Paragon Hot-Water Circulator

is provided with a large steam dome, which is absolutely necessary if dry steam is to be obtained ; while in the Water Circulator there is only such space over the top flue as will give the room needed for proper internal circulation. The cuts that are shown herewith fully explain the difference between the respective constructions for steam and hot water. In a hot-water circulator it is very undesirable to have more water space above the top flue than is absolutely necessary. A small volume of water in contact with the heating surfaces insures quick heating and a rapid return to the radiating surfaces. A section with sufficient space above the top flue

A to give steam room enough for proper steam heating
Distinctive is not suited to give the most effective results if used
Appliance also for hot-water heating. To save pattern costs, most manufacturers have tried to make the same section answer both purposes. We have preferred to go to the extra expense of different patterns, in order to get best possible results from each.

Attention is again called to the effective formation of the intermediate section, which is practically a water-tube construction, inclined upward and forward, so that the water as it is being heated



must travel steadily in parallel lines with the products of combustion, but in the opposite direction, thus extracting from the ignited gases the maximum of heat. All the heat that is required to produce a proper draft in the chimney and connections is thoroughly utilized.

The Circulator is provided with the same kind of water-front as we provide in the Steam Generator. This water-front, as we have said before, can be connected with a circulating boiler to increase the supply of hot water for bath purposes, thus utilizing all the heat produced by the fire.

**Water
Front**

As much care and thought have been expended in the preparation of the patterns for the **PARAGON** Water Circulator as for those of the Steam Generator, and the same careful supervision is given to every Circulator that goes out of our establishment, in order that it may do perfect work.

There are no fittings included in the prices of the **PARAGON** Water Circulators. The ratings given in the following tables are conservative and are based upon the use of hard coal as fuel.

Conservative Ratings

When soft coal is used, we recommend a size larger Circulator than for hard coal. The creosote contained in wood tends to clog the flues and diminishes the effectiveness of the heating surfaces, rendering wood undesirable as a fuel for such apparatus.



Paragon Hot-Water Circulator

Number of Circulator	Number of Sections	Grate Dimensions	Width of Circulator	Depth of Circulator	Total Height	Height to Center of Return	Feed Outlets	Return Inlets	Size of Smoke Pipe	Direct Radiation Supplied
			Across Water Sections							
		Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches Round	Sq. Feet
320	3	14 x 20	18½	27	49	12½	1—3	1—3	6	350
420	4	20 x 20	24¾	27	49	12½	2—3	2—3	7	575
424	4	20 x 24	24¾	31	49	12⅞	2—3	2—3	7	700
520	5	26 x 20	31	27	49	12½	2—3	2—3	8	825
524	5	26 x 24	31	31	49	12⅞	2—3	2—3	8	925
428	4	20 x 28	26⅝	40⅝	54	16⅝	2—4	2—4	8	975
620	6	32 x 20	37¼	27	49	12½	3—3	3—3	10	1075
624	6	32 x 24	37¼	31	49	12⅞	3—3	3—3	10	1175
528	5	26 x 28	32¾	40⅝	54	16⅝	2—4	2—4	9	1300
720	7	38 x 20	43½	27	49	12½	3—3	3—3	12	1400
724	7	38 x 24	43½	31	49	13⅝	2—4	2—4	12	1525

Paragon Hot-Water Circulator

Number of Circulator	Number of Sections	Grate Dimensions	Across Water Sections		Total Height	Height to Center of Return	Feed Outlets	Return Inlets	Size of Smoke Pipe	Direct Radiation Supplied
			Width of Circulator	Depth of Circulator						
		Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Sq. Feet
628	6	32 x 28	38 $\frac{7}{8}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	2—4	2—4	Round 10	1650
824	8	44 x 24	49 $\frac{3}{4}$	31	49	13 $\frac{3}{8}$	3—4	3—4	Oval 12	1875
728	7	38 x 28	45	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	3—4	3—4	Oval 12	2050
924	9	50 x 24	56	31	49	13 $\frac{3}{8}$	3—4	3—4	Oval 14	2225
828	8	44 x 28	51 $\frac{1}{8}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	3—4	3—4	Oval 14	2475
928	9	50 x 28	57 $\frac{1}{4}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	3—4	3—4	Oval 15	2900
1028	10	56 x 28	63 $\frac{3}{8}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	4—4	4—4	Oval 15	3300
1128	11	62 x 28	69 $\frac{1}{2}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	4—4	4—4	Oval 16	3700
1228	12	68 x 28	75 $\frac{5}{8}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	5—4	5—4	Oval 18	4200
1328	13	74 x 28	81 $\frac{3}{4}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	5—4	5—4	Oval 18	4700
1428	14	80 x 28	87 $\frac{7}{8}$	40 $\frac{3}{8}$	54	16 $\frac{3}{8}$	6—4	6—4	Oval 18	5200



Paragon Junior

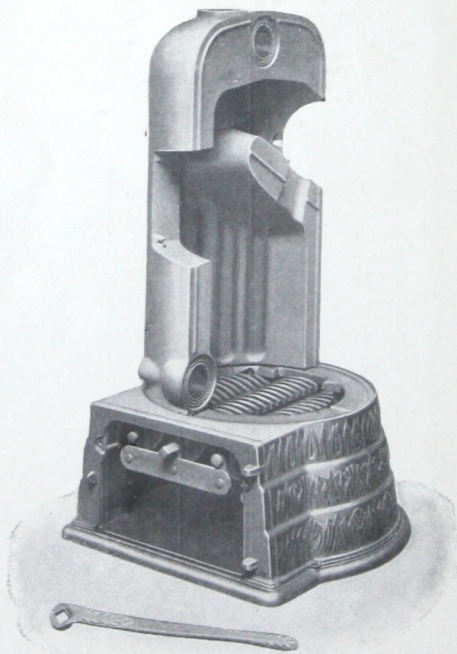
Patented February 7, 1899

Patented May 29, 1900

THIS line of goods has been made with the idea of introducing into a round fire-box construction the characteristic features of our regular **PARAGON** line. The boiler is made in vertical halves and connected together with our celebrated **PARAGON**

nipple, thus doing away with the liability of having the boiler crack when being forced during very cold weather, which is the case in boilers of the single piece type. It also permits of more easy entrance through doorways, as the halves may be carried in separately, thus increasing the ease in handling.

The fire pot is heavily corrugated, giving a large amount of surface in direct contact with the fire. The overhanging waterway is



drawn down close to the fire, and is, therefore, prime heating surface. The course of the products of combustion is deflected by this arm, the greater portion of the heat being thrown to the front of the boiler and passing around the arm, while the smaller amount of heat is allowed to pass directly through the arm and up the chimney, keeping the chimney warm and the draft alive even when the fire is banked for the night. We consider this an essential feature of the construction, as it is always difficult to keep fire over night in small boilers.

Examination of the boiler will show that it is made with more water space at the front than at the back. This formation allows of freer circulation of the water in the boiler and prevents "foaming."

A gas burner of an approved type is provided, by which a proper supply of oxygen is admitted and the combustion made perfect. This is especially valuable where bituminous or semi-bituminous coal is used.

The grate construction is the same as used in the **PARAGON**. The ashpit is large and gives ample clearance for the grate and is mounted upon a substantial iron bottom. The whole apparatus is tastefully ornamented and presents a very neat appearance when set up.

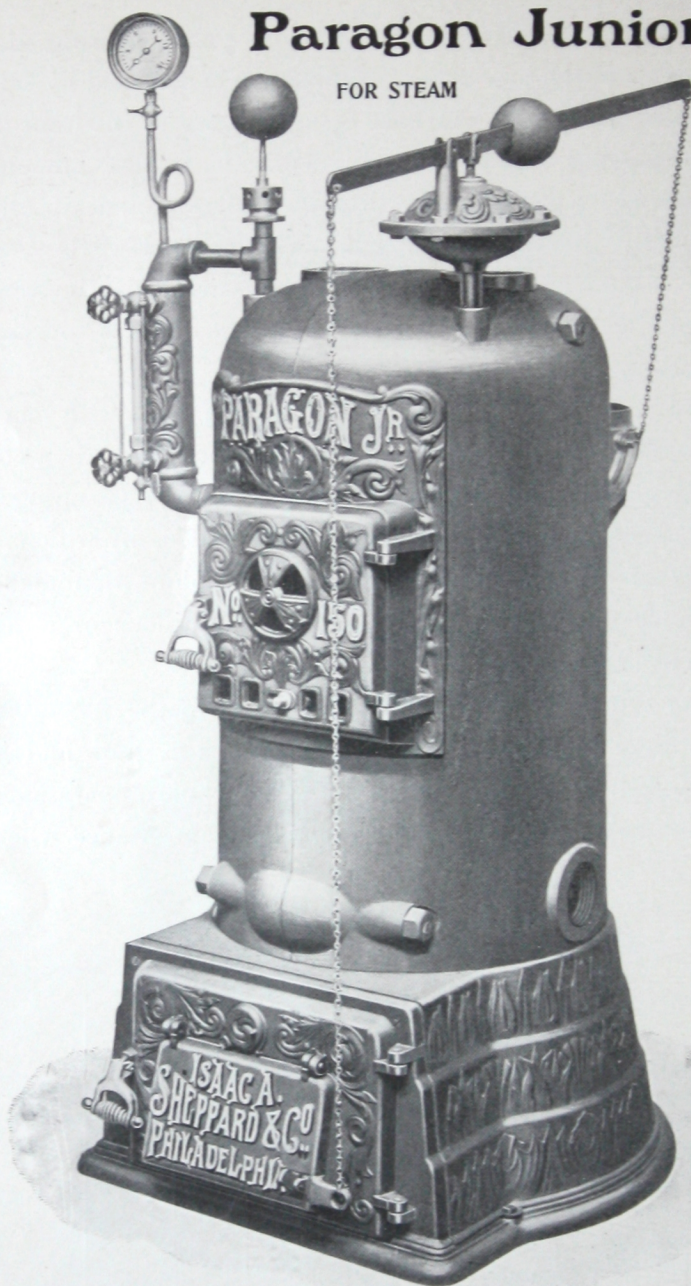
Dimensions and Capacities

Size,	150	180	210
Diameter of Grate,	15	18	21
Height,	45	49	49
Height of Water Line—Steam,	41½	41½	41½
Number and Size, Flows—Steam, . . .	2-2½	2-2½	2-2½
Number and Size, Returns—Steam, . .	2-2	2-2	2-2
Height—Center of Return,	15	15	15
Number and Size, Flows—Hot Water, .	2-3	2-3	2-3
Number and Size, Returns—Hot Water,	2-3	2-3	2-3
Width of Base,	27¼	31	34¼
Depth of Base,	27¼	31	34¼
Size of Smoke Pipe,	6	6	7
Rating, Mains Covered—Steam,	175	250	350
Rating, Mains Covered—Hot Water, . .	300	450	600

Paragon Junior

FOR STEAM

PAT., FEB. 7, 1899
PAT., MAY 29, 1900



Supplied with the Usual Trimmings as shown, viz.:

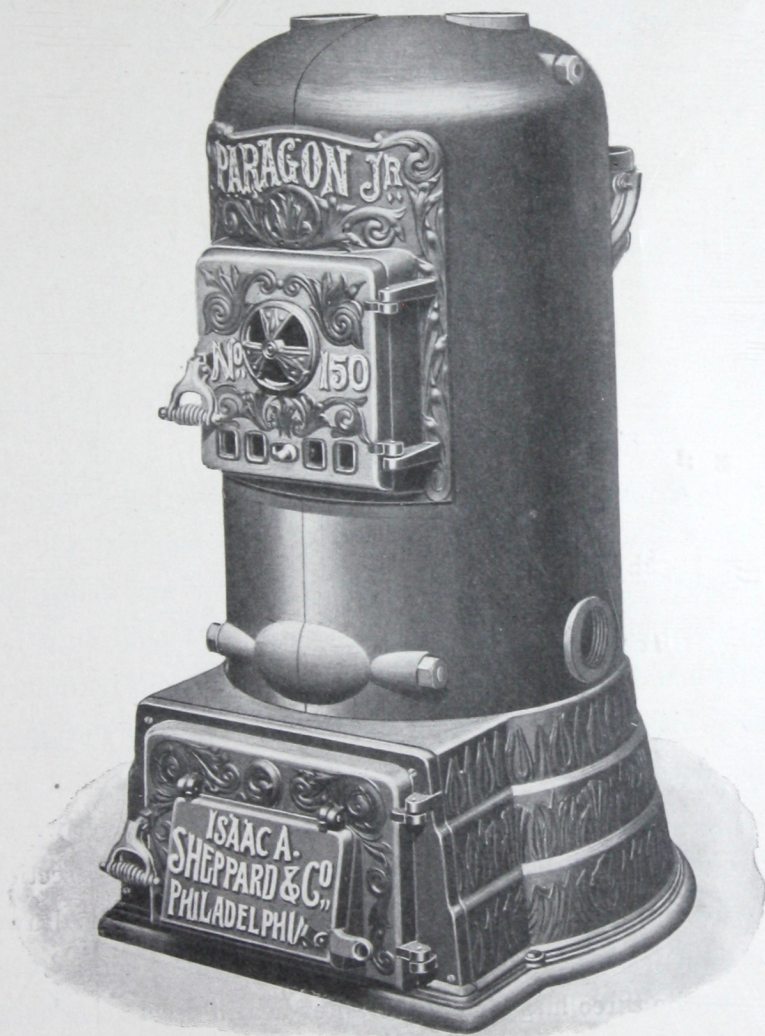
Steam gauge, stop-cock and syphon, safety valve, water column, gauge glass, guard rods, blow-off valve, automatic damper regulator, lever and weights for automatically opening and controlling draft door and cold air check.

Paragon Junior

FOR HOT WATER

PATENTED FEB. 7, 1899

PATENTED MAY 29 1900



Supplied as shown and tapped for Altitude Gauge and Thermometer



Paragon Dwarf

TANK HEATER

THIS is a very powerful heater made with the latest form of Draw-Centre Grate, which can easily be removed without disturbing the rest of the stove. The flow and return are at the back of the boiler, enabling connections to be made on either right or left-hand side of stove. There is a poke-hole in front of the boiler, which admits of free access to the surface of the grate. The feeder door is a convenience not found in most goods of this character. A damper is placed in the back of the stove, which accomplishes the checking of the draft. The water-heating section above the fire pot is made in such a way that the surfaces are drawn closely together, the products of combustion thereby being fully utilized. In the three larger sizes the water-heating section extends all the way down to the base top, and in the smallest size, owing to the reduced area and the desirability of not chilling the small body of fire, the lower part of the fire pot is brick lined.

Paragon Dwarf

TANK HEATER

Four Sizes,—One Style Only



Cut Shows Heater with Round Top and One Cover

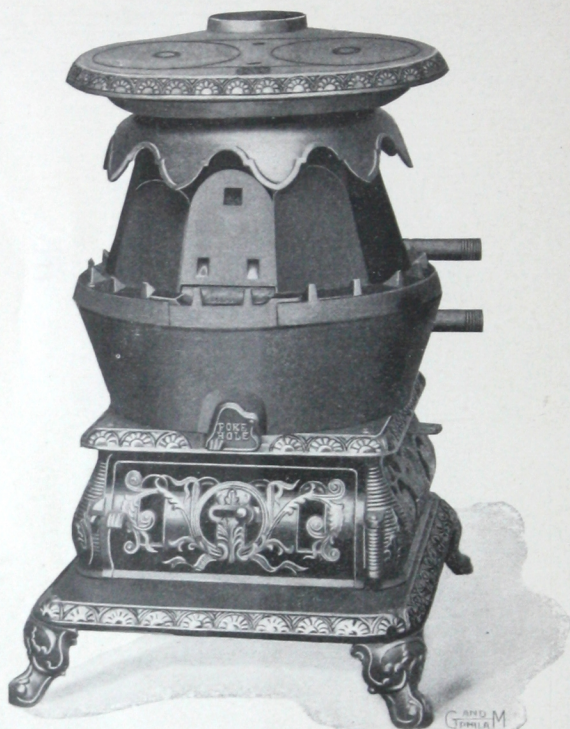
Size	Heating Capacity	Square Feet	Gallons
No. 10	" "	60	80
No. 12	" "	90	120
No. 14	" "	150	200
No. 16	" "	225	300

Paragon Laundry Stoves

Two Sizes,—Four Styles in Each Size

ROUND TOP AND ONE COVER
OVAL TOP AND TWO COVERS

SQUARE TOP WITH REDUCING RINGS
SQUARE TOP WITH FOUR COVERS



In this up-to-date laundry stove the draw-centre grate can be removed without disturbing the rest of the stove. Feet bolted fast to bottom,—poke-hole in front,—outlet and inlet at back, so connections can be made on either side. The iron-heating section is made with expansion piece to prevent cracking, and is drawn close to the fire to insure quick heating of irons. The fire may be fed through feeder door without disturbing anything on top of stove.

Size,	2	4
Rating in Gallons,	65	100



ESIDES manufacturing a line of

Paragon

Steam and Hot-Water Heating Apparatus, we handle a large variety of steam and hot-water specialties, a catalogue of which will be forwarded on application.



Paragon Steam Generator



Double-Front Construction





